

CLAIMS

1. A peptide characterized by the fact that it has a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 1.

2. A peptide according to claim 1, characterized by the fact that it is substantially homologous to a peptide that has a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 1.

3. A peptide functionally equivalent to a peptide according to claim 1 or 2, characterized by the fact that it is able to at least partially inhibit neuronal exocytosis.

4. A peptide according to claim 1, characterized by the fact that it has a length of 3 to 30 amino acids, preferably of 6 to 19 amino acids.

5. A peptide according to claim 1, characterized by the fact that said amino acids have D-configuration.

6. A peptide according to claim 1, characterized by the fact that said amino acids have L-configuration.

7. A peptide according to claim 1, characterized by the fact that the amino acid from the amino end has an acetylated terminal amino group.

8. A peptide according to claim 1, characterized by the fact that the amino acid from the carboxyl end has an amidated terminal carboxyl group.

9. A peptide according to claim 1, characterized by the fact that it has an amino acid sequence selected from the amino acid sequences shown in SEQ. ID. No. 2 and SEQ. ID. No. 3.

10. A peptide according to claim 1, characterized by the fact that it also contains a reversible modification in order to increase its bioavailability and its ease in passing through the blood-brain barrier and epithelial tissue.

11. An isolated nucleic acid sequence, characterized by the fact that it codes for a peptide according to any of the claims from 1 to 10.

5 12. A nucleic acid sequence according to claim 1, characterized by the fact that said nucleic acid is selected among single-strand DNA, double-stranded DNA, and RNA.

10 13. A plasmid, characterized by the fact that it has a nucleic acid sequence according to claim 11.

14. An expression vector, characterized by the fact that it contains a nucleic acid sequence according to claim 11.

15 15. A prokaryotic or eukaryotic cell, characterized by the fact that it expresses a peptide according to any of the claims from 1 to 10.

16. A mix of peptides, characterized by the fact that it is made up of:

(a) at least one peptide according to any of the claims from 1 to 10, and

20 (b) at least one peptide with a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 4.

17. A mix according to claim 16, characterized by the fact that it is made up of:

25 (a) at least one peptide selected from the group formed by the peptides shown in SEQ. ID. No. 2 and in SEQ. ID. No. 3, and

(b) at least one peptide selected from the group formed by the peptides shown in SEQ. ID. No. 5 and in SEQ. ID. No. 6.

30 18. A cosmetic composition that includes a cosmetically effective amount of at least one peptide according to any of the claims from 1 to 10, along with at least one cosmetically acceptable adjuvant.

19. A cosmetic composition according to claim 18, that includes, also optionally, at least one peptide with a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 4.

5 20. Use of a peptide according to any of the claims from 1 to 10 in the preparation of a cosmetic composition for the treatment of facial wrinkles and/or asymmetry.

10 21. A method for the cosmetic treatment in humans of facial wrinkles and/or asymmetry that includes applying a cosmetically effective amount of at least one peptide according to any of the claims from 1 to 10 to said human who has facial wrinkles and/or asymmetry, along with (optionally) one or more peptides with a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 4, preferably in the form of a cosmetic composition according to claims 18 or 19.

15 22. A pharmaceutical composition that includes a therapeutically effective amount of at least one peptide according to any of the claims from 1 to 10, along with at least one pharmaceutically acceptable excipient.

20 23. A pharmaceutical composition according to claim 22, that includes, also optionally, one or more peptides with a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 4.

25 24. A pharmaceutical composition according to claim 22, that includes, also optionally, a drug selected from the group formed by a neuronal glutamate receptor blocker, a calcium chelator, an anti-oxidant, a free-radical destroyer and their combinations, and optionally, another or other neuronal-exocytosis inhibiting compound(s).

30 25. A composition according to claim 24, that includes, also optionally, one or more peptides with a sequence of 3 to 30 adjacent amino acids contained in SEQ. ID. No. 4.

26. A pharmaceutical composition that includes a therapeutically effective amount of a vector that contains at least one nucleic acid sequence according to claim 11, that codes for a peptide according to any of the claims from 1 to 10, along with at least one pharmaceutically acceptable adjuvant and/or excipient.

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27. Use of a peptide according to any of the claims from 1 to 10 in the preparation of a medicine for the treatment of pathological neuronal exocytosis-mediated pathological diseases and/or disorders.

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28. Use of a vector that contains at least one nucleic acid sequence according to claim 11, that codes for a peptide according to any of the claims from 1 to 10, in the preparation of a medicine for the treatment of pathological neuronal exocytosis-mediated pathological diseases and/or disorders.